

Survey Report of World War II Air Bases in Kansas



Walker Army Air Field, Ellis County, circa 1942

Prepared for the
Kansas Department of Transportation
by

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Background

While there have been numerous private efforts to document World War II (WWII) era aviation construction in Kansas, there is no single, authoritative source for this information. Additionally, the available information is outdated, incomplete, inaccurate and not documented in accordance with any historical standard. The recent demolition of a dilapidated B-29 hangar at the Pratt Industrial Airport highlighted the need for a comprehensive accounting of any other such structures in Kansas. In April 2008, The Kansas Department of Transportation (KDOT) Division of Aviation and the Kansas State Historical Society (KSHS) requested an inventory of all aviation related World War II era (1939-1945) buildings and structures across the state of Kansas. Susan Jezak Ford conducted a survey during the summer and fall of 2008 of all known and remaining airbases and auxiliary fields in Kansas. The resulting survey can be viewed online at <http://newman.kgs.ku.edu/hri/>.

Summary and Methodology

This survey report documents the results of a statewide survey conducted of Kansas World War II airfields between June and November 2008. The survey and evaluation of built resources was conducted as a component of the mitigation of the demolition of the B-29 Pratt hangar. Sixteen Army Airfields and two Naval Air Stations constructed in Kansas for World War II training were identified through research of academic sources, historic aviation maps and the internet. The locations of additional extant auxiliary fields and outlying fields were also identified. Each known site was visited.¹ Historic structures and sites were photographed and drawn on a sketch map for each field. A total of 28 fields were visited and 170 historic resources were surveyed. The resources include intact and altered structures, runways and ruins that originally served WWII airfields.

Each survey form included a recommendation of eligibility for listing on the National Register of Historic Places. Each resource could be identified as Eligible, Not Eligible, Contributing (to a potential historic district) or Not Assessed. Most airfields contained a combination of buildings that are individually eligible and buildings or remains that could contribute to a historic district. Although many of the sites or buildings have undergone changes ranging from non-historic cladding to demolition with only the ruins remaining, the contributing features usually retain a strong sense of place associated with the airbase. The placement of each resource in relation to the original layout of the airfield represents the function and size of the base, making most resources eligible as contributing to a historic district. Buildings individually eligible retain a high degree of integrity in form, materials and placement. Even when clad in modern materials, these individually eligible buildings retain interiors close to their original appearance. Ruins topped with new construction are considered non-contributing.

With very few exceptions, each field has the potential for nomination to the National Register of Historic Places as a historic district. To achieve this, each field requires further in-depth evaluation and research, as well as consultation with the Kansas State Historical Society.

¹ The Fairfax field was not visited. The General Motors assembly plant now occupies the entire site.

Timeline

The project began with a meeting on April 10, 2008 between KDOT representatives George Laliberte and Neil Rusch of KDOT, KSHS Deputy SHPO Patrick Zollner and preservation consultant Susan Ford. The group discussed the project's scope and planning began. As a result of the preliminary meeting, it was estimated that approximately 26 potential sites retained WWII resources. KDOT mailed notification letters to each operating airfield in June 2008. Susan Ford contacted the manager or owner of each property for permission to arrange site visits. Owners of privately owned properties were found through contacts with county Records of Deeds.

Site visits took place between June and November 2008. The following table identifies each airfield, the date visited by Ford and the number of resources surveyed at each site.

Date	Airfield Visited
23 June 2008	Great Bend AAF, Barton County; 10 resources.
23 June 2008	Walker AAF, Ellis County; 12 resources.
23 June 2008	Smoky Hill AAF, Saline County; 3 resources.
24 June 2008	Herington AAF, Morris; 16 resources.
24 June 2008	Marshall Field, Riley County; 1 resource.
14 July 2008	Pratt AAF, Pratt County; 17 resources.
14 July 2008	Jetmore Auxiliary Field, Hodgeman County; 1 resource.
15 July 2008	Dodge City AAF, Ford County; 16 resources.
15 July 2008	Garden City Aux. Fields #1, #2, #3, Gray & Finney Co.; 3 resources.
16 July 2008	Garden City AAF, Finney County; 8 resources.
17 July 2008	Liberal AAF, Seward County; 29 resources.
15 September 2008	Hutchinson NAS, Reno County; 13 resources.
15 September 2008	Hutchinson NAS OLFs #1, #2, Reno & Harvey Co.; 4 resources.
15 September 2008	McConnell AAF, Sedgwick County; 1 resource.
16 September 2008	Strother Field, Cowley County; 9 resources.
16 September 2008	Strother Auxiliary Field #5, Sumner County; 1 resource.
7 October 2008	Topeka AAF ² , Shawnee County
16 October 2008	Independence AAF, Montgomery County; 2 resources
16 October 2008	Independence Auxiliary Field #9, Labette County; 1 resource.
16 October 2008	Coffeyville AAF, Montgomery County; 8 resources.
16 October 2008	Coffeyville Auxiliary Field #3, Labette County; 1 resource.
5 November 2008	Olathe NAS, Johnson County; 13 resources
5 November 2008	Olathe NAS OLF #2, Gardner OLF, Johnson County; 2 resources
10 November 2008	Sherman AAF, Leavenworth County; 1 resource

At every site, each visible resource was recorded unless access was restricted or deemed dangerous. Many of the operating fields provided an escort during the visits. A sketch map was drawn of each base or field, photographs were taken and information was recorded.

² "The Cultural Resources Survey and Evaluation Report for Kansas Air National Guard Properties at Forbes Field, Topeka, Kansas" is available at KSHS. No survey forms were entered for the Topeka AAF for this project at the request of KSHS.

After each site visit, digital photographs were labeled according to KSHS requirements, converted to small files for uploading to the KSHS website and converted to large files for archival disks. Online survey forms were submitted to the KSHS database for each historic resource. Photographs were attached to each form documenting all sides of buildings and interiors as available. Photographs also accurately depicted each non-structural resource, such as runways, foundations and fields. Each online survey form included UTM coordinates, site plans, aerial photographs and determinations of eligibility for the National Register of Historic Places. Archival photographic disks were mailed to KSHS and KDOT. KDOT also received a hard copy of each survey form. Survey forms were edited and accepted by KSHS staff.

The original estimate to conduct the survey and complete the survey forms was 120 hours. Far more resources were discovered than originally estimated and the new online survey system required additional time to complete. Documenting and recording the 170 resources exceeded the budget for the entire project. For this reason, the requested Multiple Property Documentation Form (MPDF) for World War II Aviation Resources of Kansas and article for *Kansas Preservation* magazine are uncompleted.

Historical Summary and Architectural Analysis

The air branch of the United States Army took on a new role in March 1935 when the War Department established the General Headquarters Air Force (GHQAF). The purpose of the newly formed GHQAF was to provide air defense and a striking force, including pursuit, bombardment and attack units. With the escalation of war in Europe, President Franklin D. Roosevelt asked Congress to increase America's air power in January 1939, which he described as "utterly inadequate." Hitler attacked Poland on September 1, 1939 and World War II began. As the Axis forces won several victories, the Army's air forces expanded rapidly between late 1940 and late 1941.³ By the time President Franklin Roosevelt declared a national emergency on May 27, 1941, a call for increased troops and bases was well underway. Following the attack on Pearl Harbor, the expansion of airbases in Kansas proceeded rapidly. The state was topographically ideal for airstrips that could accommodate the large aircraft and the training of operators.

Eighteen Kansas airfields contributed to the World War II fight, 16 Army airfields (AAF) and two Naval air stations (NAS). Hundreds of auxiliary fields were also planned, ranging from sod landing strips to asphalt or concrete fields with support buildings.⁴ The primary bases were scattered across the state's central and southern planes, employing thousands of military and civilian workers. At the peak of World War II enrollment, more than 2.4 million men and women served the United States Army Air Forces. Various military positions included pilots, navigators, bombardiers, radio operators, flight controllers, teachers, typists, clerks and engineers.⁵ Civilians worked in offices, warehouses, food preparation, laundries, grounds maintenance and equipment maintenance. This diverse group of workers came together for the common goal of deploying aircraft and cargo to the Pacific front. Most bases required dozens of buildings to house the military workers, train pilots and support the war effort.

³ Maurer.

⁴ Most planned auxiliary fields were not built and few that were constructed remain.

⁵ Maurer.

Army Air Fields

Thirteen of the 16 Army airfields in Kansas were constructed specifically for the WWII effort. Only three were already in operation at the onset of World War II: Marshall Field at Fort Riley, McConnell Field in Wichita and Sherman Field at Fort Leavenworth.

World War II construction dates are listed below:⁶

AAF Base	Onset of construction
Smoky Hill	5 May 1942
Strother	16 May 1942
Coffeyville	1 June 1942
Fairfax	1 June 1942
Independence	6 June 1942
Garden City	16 June 1942
Dodge City	6 August 1942
Topeka	15 August 1942
Herington	September 1942
Walker	14 September 1942
Great Bend	30 September 1942 (estimate)
Pratt	8 October 1942
Liberal	9 January 1943

The massive army bases were rapidly built, usually completed within 18 months. The immediate construction on each base involved runways and airplane hangars. Each field usually had three or more concrete runways, several taxiways and a large parking apron. Base runways ranged from around 5000 feet long to 10,000 feet at Smoky Hill and Walker. Most base runways were originally in a triangular configuration, easily identifiable from the air. Auxiliary fields were took all forms. Some were simply fields cleared of nearby brush. Municipal airports often served as auxiliary fields. Asphalt or concrete fields constructed during WWII took the form of either one straight runway, a concrete pad (such as Garden City Auxiliary #1) or triangular (such as Strother Auxiliary #5.)

⁶ General Richard M. Montgomery & Joseph P. McGinley, "U.S. Army and Air Force Wings Over Kansas," *The Kansas Historical Quarterly*, Summer and Autumn 1959 (KSHS reprint).



Garden City Aux #1 in Gray County & Strother Aux #5 in Sumner County

In addition to buildings for the airfield, cantonment (administration, housing, warehouses, utilities and infrastructure) and training, most bases included buildings for recreation, welfare and health. A 1959 article titled “U.S. Army and Air Force Wings Over Kansas” in *The Kansas Historical Quarterly* lists the buildings constructed at the Coffeyville AAF, a typical Kansas base.

Airfield: 4 runways, 5 taxiways, 3 hangars, parking apron and control tower.

Cantonment: 67 enlisted men’s barracks, 25 cadet barracks, 3 WAC’s barracks, 8 mess halls, 1 guard house, 1 commissary, 13 warehouses, 11 administration buildings, 12 supply rooms, 1 post headquarters building, 6 operations buildings, 1 fire station, 1 telephone building, 1 signal office building.

Training: 1 ground school building, 2 miscellaneous buildings, 6 link trainer buildings, 1 chemical warfare building.

Recreation and Welfare: 17 general recreation buildings, 1 chapel, 1 theater, 1 post office, 1 post exchange.

Hospital: 1 administration building, 5 wards, 1 infirmary, 1 dental clinic, 1 nurses’ quarters, 1 nurses’ recreation building.⁷

Army buildings were ultimately utilitarian and quickly assembled. Most base buildings, not meant for long-term use, were constructed of temporary or semi-permanent materials. Although some hangars had steel frames and the occasional brick or tile brick building could be seen, most support buildings sat on concrete foundations but were of frame construction clad in little more than plywood and tarpaper.

The buildings at Kansas Army bases were usually consistent in design. Whether constructed of steel or wood, hangars typically had similar elements that included round top roofs, cantilevered sliding doors, one-story sheds on the rear or sides and a brick chimney connected to a boiler. Hangar designs occasionally deviated from the traditional round top, as seen in the flat-roofed structure associated with the Dodge City AAF. The type of aircraft housed usually determined

⁷ Montgomery & McGinley.

hangar design and size. Buildings for the very large B-29 airplanes had upper openings in each end to accommodate the tails of the airplanes.



Pratt B-29 Hangar



Herington AAF and Coffeyville AAF hangars



Dodge City AAF hangar

Support buildings also resembled each other from base to base. Most can best be described as Minimal Traditional, devoid of decoration and focusing on economy of materials. The purpose

of each support building is usually not recognizable from its appearance, with the exception of parachute buildings. The lack of specific designs allowed building types to be adapted to several uses. The reinforced concrete bunker that served as bomb storage at Great Bend also protected important files at Herington. Classroom buildings resembled barracks, with multiple windows and doors. A concrete cube could serve as storage or house electricity for runway lighting. Extant examples of these no-frills structures best demonstrate the appearance of WWII bases across Kansas.



Great Bend AAF bomb storage and Herington AAF records storage



Pratt AAF Transformer Building and Liberal AAF storage



Strother AAF and Liberal AAF classroom buildings



Pratt AAF and Coffeyville AAF parachute buildings

Naval Air Stations

With President Roosevelt's proclamation of a national emergency on May 27, 1941, all naval reservists not on a deferred status went back into duty. The re-entry of the reservists accelerated the Navy program to include 2500 new cadets each month and the commissioning of 20 new air stations by 1942.⁸

The Navy purchased a site for a new Naval station in Johnson county between Olathe and Gardner. Construction began on January 5, 1942 and was complete in early 1944. The Navy also purchased or leased land for up to 14 outlying fields, although not all of these sites were used. The site for the Hutchinson Naval Air Station was chosen in 1942, located on a tract approximately seven miles south of Hutchinson and one mile west of Yoder on more than 2500 acres. An additional 3900 acres were leased for up to 20 auxiliary landing fields. Construction for the base began in October 1942.⁹

Like the Army bases, the Naval Air Stations were built to facilitate the training of pilots. Unlike the Army bases, many of the Naval Station buildings were constructed of brick and concrete. The Navy buildings in Kansas were designed in architectural styles that were more aesthetic than the Army buildings. The Hutchinson NAS displays an Art Moderne influence, with clean lines, windows that wrap building corners and wide concrete eaves that contrast with red brick walls. The Olathe NAS buildings are in the Art Deco style, featuring concrete sill and lintel courses that contrast with red brick walls, geometricized trim and the occasional stepped parapet.

⁸ R. Douglas Hurt, "Naval Air Stations in Kansas During World War II," *The Kansas Historical Quarterly*, Autumn 1977 (digitized at www.kancoll.org).

⁹ Hurt.



Hutchinson control tower in 2008 and circa 1944



Hutchinson warehouse and miscellaneous building



Olathe administration building and maintenance building



Olathe warehouse and fire station

Kansas Airfields Today

After the end of WWII, the military decommissioned most Kansas bases and then sold or deeded them to nearby cities for use as municipal airports. Several continue to operate as small airfields and industrial parks today. Three—Walker AAF, Dodge City AAF and Hutchinson NAS—are now privately owned and mostly in a state of disrepair. Auxiliary fields followed the course of the bases after WWII. Some simply reverted back to agricultural land and some continue as landing strips for crop dusters and private airplane owners.

The condition of airfield buildings varies greatly from base to base in Kansas. All bases have lost significant numbers of buildings through either neglect or demolition, but many buildings and sites remain. The best-preserved buildings are typically in use as part of an industrial park. Large buildings, such as hangars, are often clad in non-historic siding. Structures left in their original condition with no maintenance are usually in the worst condition. Many have simply collapsed or burned. Despite their condition, each base contains buildings that are individually eligible for listing on the National Register of Historic Places or eligible as contributing to a potential historic district. A collection of buildings combined with ruins can convey the magnitude of activity associated with an air base during World War II. The grouping can reveal the base's layout, locations of activity and sheer mass of a base. Non-historic sidings are reversible alterations to significant buildings that often protect original materials and methods of construction.



Great Bend AAF and Walker AAF hangar ruins



Walker AAF and Dodge City AAF ruins



Pratt AAF ruins

The quantity and scope of WWII air bases and buildings in Kansas is too extensive for a blanket determination of eligibility. To pursue individual or district listing to the National Register, a preservation consultant and KSHS staff need to evaluate the proposed building or base.

Bibliography

The following documents provided information for the historical summary. Interviews with numerous local residents and WWII enthusiasts also provided valuable information.

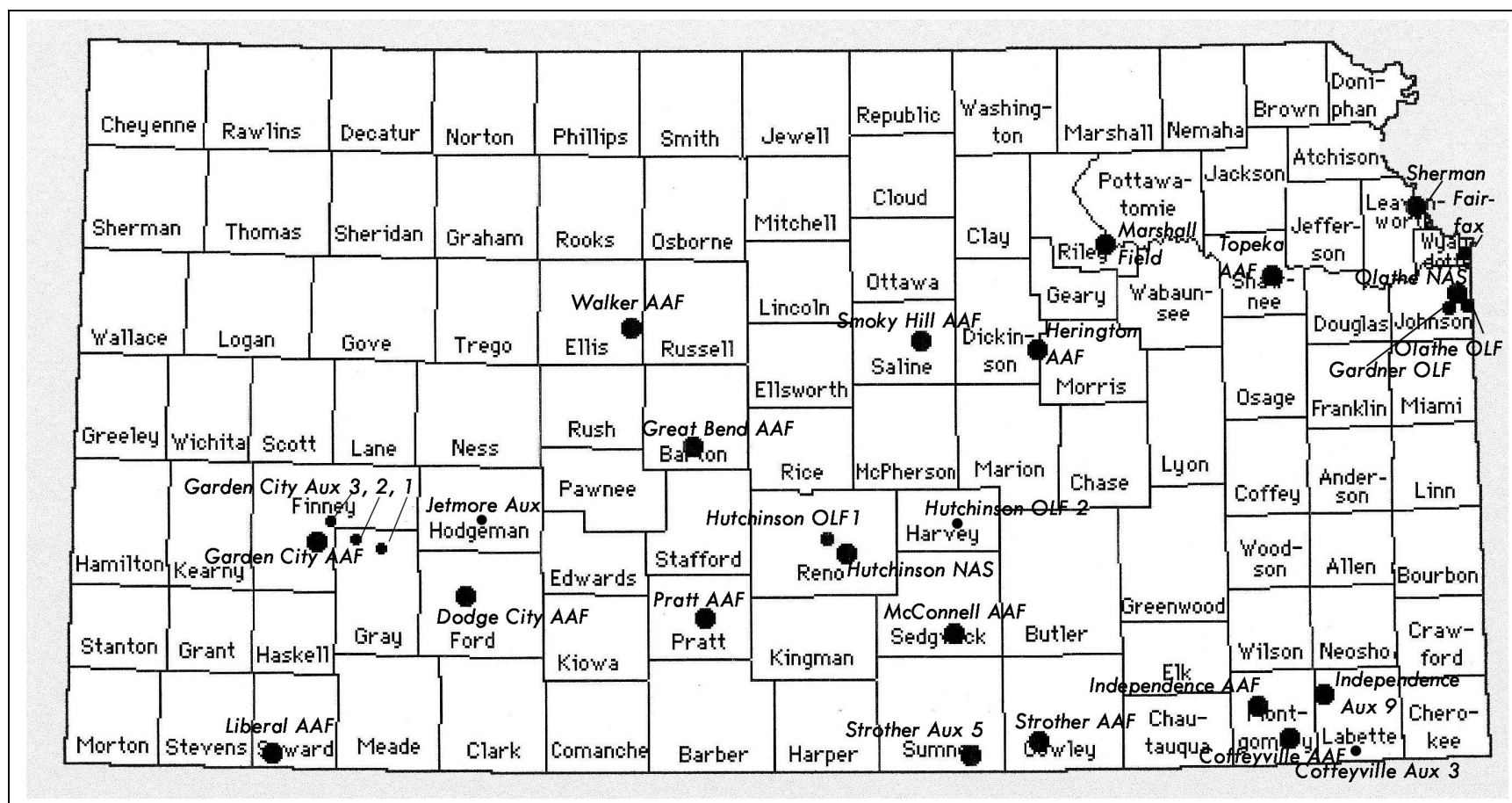
Hurt, R. Douglas. "Naval Air Stations in Kansas During World War II." *The Kansas Historical Quarterly*, Autumn 1977 (digitized at www.kancoll.org).

Maurer. *Air Force Combat Units of World War II*. 1980 Arno Press reprint of 1961 edition by Government Printing Office. Available for viewing at <http://books.google.com/books>.

Montgomery, General Richard & M. Joseph P. McGinley. "U.S. Army and Air Force Wings Over Kansas." *The Kansas Historical Quarterly*, Summer and Autumn 1959 (KSHS reprint).

Osborne, Richard E. *World War II Sites in the United States; A Tour Guide & Directory*. Indianapolis: Riebel-Roque Publishing Co., 1996.

Department of Commerce Sectional Aeronautical Charts: Kansas City, March 30, 1944; Salina, March 9, 1944; Tulsa, September 7, 1944; Wichita, August 10, 1944.



Map of WWII air bases and known auxiliary fields